

WE CLAIM:

1. A printable formulation comprising fillers with domain size less than 100 nanometers.
2. The printable formulation of claim 1 wherein the fillers are nanowhiskers.
3. The printable formulation of claim 1 wherein the fillers are fibers.
4. The printable formulation of claim 1 wherein the fillers are plates.
5. The printable formulation of claim 1 wherein the fillers are inorganic.
6. The printable formulation of claim 2 wherein the fillers are organic.
7. The printable formulation of claim 2 wherein the fillers are metallic.
8. The printable formulation of claim 1 wherein the printable formulation is an ink.
9. The printable formulation of claim 1 wherein the printable formulation is a paste.
10. The printable formulation of claim 2 wherein the filler comprises at least one element from the group consisting of aluminum, antimony, boron, bromine, carbon, chlorine, fluorine, germanium, hydrogen, indium, iodine, nickel, nitrogen, oxygen, phosphorus, selenium, silicon, sulfur, or tellurium.
11. The printable formulation of claim 3 wherein the filler comprises at least one element from the group consisting of aluminum, antimony, boron, bromine, carbon, chlorine, fluorine, germanium, hydrogen, indium, iodine, nickel, nitrogen, oxygen, phosphorus, selenium, silicon, sulfur, or tellurium.
12. The printable formulation of claim 4 wherein the filler comprises at least one element from the group consisting of aluminum, antimony, boron, bromine,

carbon, chlorine, fluorine, germanium, hydrogen, indium, iodine, nickel, nitrogen, oxygen, phosphorus, selenium, silicon, sulfur, or tellurium.

13. The printable formulation of claim 2 wherein the nanowhiskers are nanorods.

14. The printable formulation of claim 2 wherein the nanowhiskers have an aspect ratio greater than 2.

15. A product manufactured using the printable formulation of claim 1.

16. A device manufactured using the printable formulation of claim 14.